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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/613,701

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Ronald G. Hart

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03/08/2005

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EXAMINER

WACHSMAN, HAL D

ART UNIT

PAPER NUMBER

2857

DATE MAILED: 03/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/613,701

Applicant(s)

HART, RONALD G.

Examiner

Hal D. Wachsman

Art Unit

2857

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 43-64 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 43-64 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7-3 & 9-11-03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

1. The Preliminary Amendment filed 2-18-04 is improper under 37 C.F.R. 1.121 because each section of the amendment does not begin on a separate sheet (page 2 has both the IN THE FIGURES section and the IN THE SPECIFICATIONS section). In addition, the replacement drawings filed to replace Figures 1-30b have not been identified in the top margin as "Replacement Sheet" and the added new Figures 31a-46i have not been identified in the top margin as "New Sheet". Also, there is no explanation of any changes that may have been made in either the IN THE FIGURES section or in the REMARKS section. Appropriate correction is required.
2. The Related Applications section on page 1 of the specification does not provide the current status of U.S. application serial no. 10/068,431 (i.e. is now U.S. patent no. 6,694,270). In addition, this section indicates that U.S. application serial no. 08/798,923 (08/798,723 ?) incorporated by reference 08/798,724 however this is an improper incorporation by reference because essential material may not be incorporated by reference to a U.S. patent or application which itself incorporates essential material. Also, line 7 of this paragraph 0001, refers to "08/798,923" but was it actually "08/798,723" that was intended here ? Appropriate correction is required.
3. On page 13, paragraph 0076, "FDDI" has not been defined. Appropriate correction is required.
4. The listing of references in the specification (see pages 17-20, 22, 26, of the specification) is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the

specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

5. The tables on pages 27-54, 56-74 and 77, are objected to under 37 C.F.R. 1.52 because the lettering is of insufficient size and there is insufficient margins at the bottom of those pages. Appropriate correction is required.

6. Claims 54-64 are objected to under 37 C.F.R. 1.75(a) for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. Claim 54, line 4, cites "said devices" however the antecedent basis is "at least one device". Claim 57, line 2, cites "said timestamped at least one digital sample" which lacks antecedent basis. In claim 60, there is a lack of connection between what is stated in the first two steps of the claim and what is stated in the last two steps of the claim. This same type of problem also occurs between the first two cited means in claim 64 and the last two cited means in claim 64. Claim 63, line 1, cites "wherein c)..." which it appears should be "wherein step c)..." The examiner asks the applicant to better claim the limitations cited above. While the examiner understands the intentions of the applicant he feels confusion could be drawn from the limitations cited above. Appropriate correction is required.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 43-53 and 60-64 are rejected under 35 U.S.C. 102(b) as being anticipated by “Global Positioning System applications at the Bonneville Power Administration” (Street et al.).

As per claim 43, Street et al. (page 244, section 1. Introduction) disclose “at least one sensor coupled with said electric circuit....and generate at least one analog signal indicative thereof”. Street et al. (page 247, section 5.1 BPA’s experience to date) disclose “at least one analog to digital converter...to convert said at least one analog signal to at least one digital sample”. Street et al. (page 244, section 1. Introduction, pages 244-245, section 3. GPS SYSTEM OVERVIEW, page 247, figure 4) disclose “a time synchronization receiver...to generate a time synchronization signal”. Street et al. (page 247, section 5.1 BPA’s experience to date, figure 4) disclose “a processor coupled with said at least one analog to digital converter and said time synchronization receiver...to alter a timing clock signal based on said time synchronization signal”.

As per claim 44, Street et al. (page 247, section 5.1 BPA’s experience to date, figure 4) disclose the feature of this claim.

As per claim 45, Street et al. (pages 244-245, section 3. GPS System Overview, page 247, section 5.1 BPA’s experience to date, figure 4) disclose the feature of this claim.

As per claim 46, Street et al. (pages 244-245, section 3. GPS System Overview, figure 2, page 246, section 4.2 BPA Fault Locator Operation using GPS Timing) disclose the feature of this claim.

As per claim 47, Street et al. (pages 244-245, section 3. GPS System Overview, figure 2, page 246, section 4.2 BPA Fault Locator Operation using GPS Timing) disclose the feature of this claim.

As per claim 48, Street et al. (pages 244-245, section 3, GPS System Overview) disclose the feature of this claim.

As per claim 49, Street et al. (pages 244-245, section 3, GPS System Overview) disclose the feature of this claim.

As per claim 50, Street et al. (pages 244-245, section 3, GPS System Overview) disclose the feature of this claim.

As per claim 51, Street et al. (page 244, section 1, Introduction) disclose the feature of this claim.

As per claim 52, Street et al. (page 244, section 1, Introduction) disclose the feature of this claim.

As per claim 53, Street et al. (page 246, section 4.2 BPA Fault Locator Operation using GPS Timing, page 250, section 7, Conclusion) disclose the feature of this claim.

As per claim 60, Street et al. (page 244, section 1. Introduction) disclose "sensing at least one electrical parameter...generating at least one analog signal indicative thereof". Street et al. (page 247, section 5.1 BPA's experience to date)

disclose "converting said at least one analog signal to at least one digital sample".

Street et al. (page 244, section 1. Introduction, pages 244-245, section 3. GPS SYSTEM OVERVIEW, page 247, figure 4) disclose "generating a time synchronization signal". Street et al. (page 247, section 5.1 BPA's experience to date, figure 4) disclose "altering a timing clock signal...based on said time synchronization signal".

As per claim 61, Street et al. (page 246, section 4.2 BPA Fault Locator Operation using GPS Timing, page 250, section 7, Conclusion) disclose the feature of this claim.

As per claim 62, Street et al. (pages 244-245, section 3. GPS System Overview, figure 2, page 246, section 4.2 BPA Fault Locator Operation using GPS Timing) disclose the feature of this claim.

As per claim 63, Street et al. (pages 244-245, section 3, GPS System Overview) disclose the feature of this claim.

As per claim 64, Street et al. (page 244, section 1. Introduction) disclose the sensing means as described in lines 3-4 of the claim. Street et al. (page 247, section 5.1 BPA's experience to date) disclose the converting means as described in lines 5-6 of the claim. Street et al. (page 244, section 1. Introduction, pages 244-245, section 3. GPS SYSTEM OVERVIEW, page 247, figure 4) disclose the synchronization means as described in line 7 of the claim. Street et al. (page 247, section 5.1 BPA's experience to date, figure 4) disclose the processing means as described in the last 2 lines of the claim.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 54-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over "Global Positioning System applications at the Bonneville Power Administration" (Street et al.) in view of "Multichannel Continuous Harmonic Analysis in Real-Time" (Miller et al.).

As per claim 54, Street et al. (page 244, section 1. Introduction) disclose "at least one sensor coupled with said electric circuit....and generate at least one analog signal indicative thereof". Street et al. (page 247, section 5.1 BPA's experience to date) disclose "at least one analog to digital converter...to convert said at least one analog signal to at least one digital sample". Street et al. (page 244, section 1. Introduction, pages 244-245, section 3. GPS SYSTEM OVERVIEW, page 247, figure 4) disclose "a time synchronization receiver...to generate a time synchronization signal". Street et al. (page 247, section 5.1 BPA's experience to date, figure 4) disclose "a processor coupled with said at least one analog to digital converter and said time synchronization receiver...to alter a timing clock signal based on said time synchronization signal". It appears though that Street et al. does not explicitly disclose a digital network with at least one device coupled with that digital network. However, Miller et al. (page 1815,

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figure 3, page 1817, CHART Control and Display Workstations) teach this excepted feature. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to apply the techniques of Miller et al. to the invention of Street et al. as specified above because as taught by Miller et al. (page 1818, Conclusion) the Ethernet network facility enables the system to be readily integrated into existing SCADA system controllers and to be accessed by any number of workstations.

As per claim 55, Street et al. (page 246, section 4.2 BPA Fault Locator Operation using GPS Timing, page 250, section 7, Conclusion) teach the feature of this claim.

As per claim 56, Street et al. (page 247, section 5.1 BPA's experience to date, figure 4) disclose the feature of this claim with the exception of explicitly disclosing that the transmission is occurring onto a digital network. However, Miller et al. (page 1815, figure 3, page 1817, CHART Control and Display Workstations) teach this excepted feature. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to apply the techniques of Miller et al. to the invention of Street et al. as specified above because as taught by Miller et al. (page 1818, Conclusion) the Ethernet network facility enables the system to be readily integrated into existing SCADA system controllers and to be accessed by any number of workstations.

As per claim 57, Street et al. (page 246, section 4.2 BPA Fault Locator Operation using GPS Timing, page 250, section 7, Conclusion) disclose the feature of this claim.

As per claim 58, Street et al. (pages 244-245, section 3, GPS System Overview) disclose the feature of this claim.

As per claim 59, Street et al. (pages 244-245, section 3, GPS System Overview) disclose the feature of this claim.

11. The following references are cited as being art of general interest: "Automated transmission line fault analysis using synchronized sampling at two ends" (Kezunovic et al.) which disclose a digital fault recorder with a GPS satellite receiver, "Time synchronous end-to-end relay testing" (Harpham et al.) which disclose the use of GPS satellites for synchronous control of remote protective relay test instruments and "Synchronized sampling improves fault location" (Kezunovic et al.) which disclose the use of receivers for accurate sampling clock synchronization using GPS.


12. No claims are allowed.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hal D. Wachsman whose telephone number is 571-272-2225. The examiner can normally be reached on Monday to Friday 7:00 A.M. to 4:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc Hoff can be reached on 571-272-2216. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Hal D Wachsman
Primary Examiner
Art Unit 2857

HW
March 2, 2005